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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/315,988	05/21/1999	HAJIME KAWANO	29273/502	7205

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KENYON & KENYON
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WASHINGTON, DC 20005

EXAMINER

FERNANDEZ, KALIMAH

ART UNIT PAPER NUMBER

2881

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/315,988

Applicant(s)

KAWANO ET AL.

Examiner

Kalimah Fernandez

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The limitations recited in claim 3 is presently claimed in independent claim 1.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 stand rejected under 35 U.S.C. 102(b) as being anticipated by JP Document 7-201720 issued to Tamura.

3. Tamura discloses an electron beam lithography system (pg. 14, parag. 22). Tamura discloses the generation of an exposure map (pg. 2, summary of the invention; pg. 14, parag. 21).
4. Tamura discloses said exposure map based on coordinates/positional relations (see pg. 12, parag. 17-18).
5. Tamura discloses a proximity effect correction means (see pg. 13, para. 20).
6. Tamura discloses a judging means for determining any overlap/straddling (pg. 12, para. 18).
7. Tamura discloses the use of a plurality of memories (pg 11-12, para. 15-16).
8. Tamura discloses the addition of area density located in memories, which implies the use of adding circuits (pg. 18, para. 32-33). Namely, in order to carry out the addition of density memory addition circuits must be employed.
9. Tamura discloses an exposure map creating means employed to divide shots so that either area values or area densities of the divide areas are stored in each plurality of memories respectively (pg. 18, para 32).

Namely, Tamura discloses dividing area/regions including areas containing overlap/straddling (pg.14, para.23).

10. As per claim 2, see figs. 6-7; pg. 17, parag. 29.

11. As per claim 3, Tamura discloses adding the area density of an overlap area to the pattern in question (pg. 18, parag.32-33).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 4-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura and in view of US Pat No 4,692,579 issued to Saitou et al.

14. In regards to claims 4 and 10, Tamura teaches the claimed invention except for NxM memories.

15. However, Saitou teaches a conventional exposure map having N parts in the direction of width and M in the direction of height (col.4, 18-27).

16. It would have been obvious to a person having ordinary skill in the art to incorporate the teaching of Saitou into Tamura, since Saitou teaches improved time and accuracy (col.2, lines 30-40).

17. As per claims 5 and 7, Tamura teaches a bit map generated by a memory means (pg.14, para. 21). Tamura teaches a read-out means for constructing a new pattern density map from the memory data addressed to two different memories (pg 11-12, para. 15-16).

18. As per claim 6, Tamura discloses adding the area density of an overlap area to the pattern in question (pg. 18, parag.32-33).

19. Claims 8-9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura and Saitou as applied to claim 4 above, and further in view of US Pat 3,921,135 issued to Komaru et al.

20. The obvious combination of Tamura and Saitou teaches the claimed invention except for selecting means.

21. However, Komaru teaches a memory system for dividing a larger area using NxM (see col.3, lines 19-45). Komaru, also, teaches the conventional selection of memories for retrieval of stored data (col.4, line 59-col.5, line 4).

22. It would have been obvious to an ordinary skilled artisan to incorporate the teachings of Komaru into Tamura, since Komaru teaches an efficient manner to decrease memory capacity without lowering quality (col.1, lines 30-34).

Response to Arguments

23. Applicant's arguments filed 5-29-03 have been fully considered but they are not persuasive. Applicant argues the cited references do not disclose or suggest that the exposure map creating means divides each shot straddling the plurality of meshes by boundaries of the meshes so that either area values or area densities of divided shots including..... However, Tamura discloses a means for generating an exposure map in which areas of exposure including overlap/straddling areas are divided and store in a plurality of memories as described above. Furthermore, Tamura discloses the addition of certain areas as discussed above in rejection.

Conclusion

24. This is a RCE of applicant's earlier Application No. 09/315,988. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the

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next Office action if they had been entered in the earlier application.

Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalimah Fernandez whose telephone number is 703-305-6310. The examiner can normally be reached on Mon-Thus between 8:30am-6:30pm.

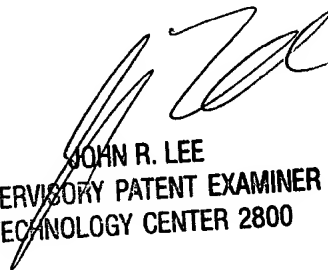
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Lee can be reached on 703-308-4116. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

KF
July 2, 2003


JOHN R. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800